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VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Samuel Laguna
Environmental Manager
TAPI Puerto Rico
PO Box 1110
Guayama, PR 00784

RE: October 2010 RFI Report
EPA ID: PRD090613357
TAPI Puerto Rico

Mr. Laguna:

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced RCRA Facility Investigation (RFI) Report. The RFI report should have incorporated Technical Memorandums 1, 2 and 3 into this report. However our evaluation included the RFI Report as submitted and the Technical Memorandum 3 information in the analysis. TAPI has to incorporate the information from the Technical Memorandum 3, address the attached comments and submit a revised RFI Report for review.

If you have further questions, feel free to contact Mr. Jesse Avilés of my staff at 787-977-5882 or by email at aviles.jesse@epa.gov. Provide one copy of the report in pdf format without any restrictions (passwords or security settings).

Cordially,

José Font, Acting Director
Caribbean Environmental Protection Division

cc: Mrs. María V. Rodríguez, Director
Land Pollution Regulation Program
Puerto Rico Environmental Quality Board
P.O. Box 11488
Santurce, PR 00910

1 General Comments

Section 3.1 Screening Levels – The 2002 Risk-Based Screening Levels from EPA Region 3 have been updated and are now called Regional Screening Levels (RSLs). These values are considered national screening values and are updated every six months. They are available at:

http://www.epa.gov/region9/superfund/prg/index.html

or

http://www.epa.gov/reg3hwmd/risk/human/index.htm

The most recent version of these values is dated November 2011. These values should be used for screening soil and groundwater results from the facility. These tables contain soil RSLs for IPE of 2,400 mg/kg for residential soil and 10,000 mg/kg for industrial soil and a tapwater RSL of 1,500 µg/l for residential use. Tables 2 through 8 should be revised to reflect the current RSLs.

There are several statements in the RFI about metals in soil being "within naturally occurring background levels found in the area." In order to verify these statements, soil sample results from background samples including locations and depths need to be presented in the report.

The vapor intrusion pathway was evaluated and determined to not be of concern based on one sub-slab sample taken in 2007. A soil gas sample was collected from under a concrete-covered road next to the occupied building closest to the area of shallow groundwater with the highest concentrations of IPE. This sample was collected in 2007 and cannot adequately represent the current conditions at the facility. A proper evaluation of the potential for vapor intrusion at this facility needs to be performed. Any proposed vapor intrusion evaluations should be discussed with EPA staff before any further vapor intrusion sampling is performed. This is to ensure that adequate locations, media, depths, and contaminants are proposed and a tiered approach is planned.

This RFI report does not contain a Screening Level Ecological Risk Assessment (SLERA). A proper evaluation of potential ecological risk needs to be prepared for this facility. The Corrective Action program has two central goals: protection of human health and the environment. Information on the need for an ecological risk assessment can be found in the August 28, 2009 memo Ecological Considerations of RCRA Corrective Action Remedies found at:

http://www.epa.gov/osw/hazard/correctiveaction/resources/guidance/risk/ecology.pdf

EPA staff needs to review any proposed evaluations of potential ecological risk at the facility and should be involved in the early planning and scoping stage.

A discussion of future land use for the facility should be provided in Section 2 Site Description.

2 Specific Comments

1. *Page 6, 2nd paragraph, last sentence* – Tables 2, 3, and 4 should be referenced in this sentence as they present the groundwater sampling results.

2. *Page 7,*

a. *4th paragraph, first sentence* – Tables 5, 6, and 7 should be referenced in this sentence since they present the soil sampling results.

b. *5th paragraph* – Soil screening levels exist for IPE – residential soil RSL is 2,400 mg/kg and industrial soil RSL is 10,000 mg/kg. An additional sentence should be added to this paragraph stating "All detected concentrations of IPE in soil samples are below the RSL."

3. *Page 9, last paragraph* – The "EPA guidance" referenced here should be identified in the list of references.

4. *Page 10*

a. *1st paragraph* – A soil gas sample was collected from under a concrete-covered road next to the occupied building closest to the area of shallow groundwater with the highest concentrations of IPE. This sample was collected in 2007 and cannot adequately represent the current conditions at the facility.

b. *2nd paragraph* – A new publication replacing the 2002 Vapor Intrusion guidance will be published soon (April is the expected date). EPA's risk assessor calculated the Vapor Intrusion values for an industrial setting (10^{-6} risk) as shown below:

Contaminant	**Industrial Indoor Air Screening Level (10^{-6} risk) (µg/m³)**	**Sub-Slab Soil Vapor Screening Level (µg/m³)**
Acetone	1.4E+05 (140,000)	1.4E+06 (1,400,000)
Benzene	1.6E+00 (1.6)	1.6E+01 (16)
Carbon Disulfide	3.1E+03 (3,100)	3.1E+04 (31,000)
Chlorobenzene	2.2E+02 (220)	2.2E+03 (2,200)
Ethylbenzene	4.9E+00 (4.9)	4.9E+01 (49)
Methylene Chloride	2.6E+01(26)	2.6E+02 (260)
Napthalene	3.6E-01(0.36)	3.6E+00 (3.6)
Diisopropyl ether	3.1E+03(3,100)	3.1E+04 (31,000)

5. *Page 11, Section 3.3.3 Phase 3 Groundwater Investigation* – This section should use the current IPE groundwater screening level of 1,500 µg/L for comparison purposes. The last paragraph should conclude that IPE slightly exceeds the screening level of 1,500 µg/l.

6. *Page 12, Section 3.3, Summary of Findings*

a. *1st bullet* – EPA would need to see background sampling results in order to agree with this finding.

b. EPA agrees with the 2nd, 3rd, 4th, and 5th bullets even with the change in RSLs for the chemicals found in groundwater, soil, and sub-slab vapor.

7. *Page 15*,

a. *Section 5.1, 2nd paragraph* should read "Workers at the TAPI … production wells is only…"

b. *Section 5.2.1, last three sentences* – Background sample results need to be presented for metals in soil in order to determine if arsenic is "within naturally occurring background levels." There are soil screening levels available

for IPE in soil. Residential soil RSL is 2,400 mg/kg and Industrial soil RSL is 10,000 mg/kg.

8. *Page 16, 2nd paragraph, last sentence* – This sentence needs to be reworded. Soil exposure can occur to industrial workers no matter if the soil compounds were detected above screening levels or not.

9. *Page 17, last paragraph* – EPA does not agree that the vapor intrusion pathway to on-site buildings is not a concern. See the General Comments section for more information.

10. *Page 18, Section 6.0 Conclusions*

    a. *1st bullet* – EPA agrees with this conclusion.

    b. *2nd bullet* – EPA needs to see background sampling results in order to agree with this conclusion.

    c. *3rd bullet* – EPA agrees with this conclusion.

    d. *4th bullet* – EPA agrees with this conclusion. The groundwater RSL for IPE should be listed as 1500 µg/l.

    e. *5th bullet* – EPA does not agree that the vapor intrusion pathway is not of concern. See the General Comments section for more information.